

## CLAIMS

1. A thermoplastic elastomer composition comprising the following components [A], [B], [C], and [D]:

5 [A] 5 to 60 mass% of an ethylene- $\alpha$ -olefin-based copolymer having a limiting viscosity of 3.5 dl/g or more measured in a decalin solvent at 135°C,

[B] 1 to 20 mass% of a polyolefin-based resin, and

10 [C] 30 to 94 mass% of a mineral oil-based softening agent, provided that the total of the components [A], [B], and [C] is 100 mass%, and for 100 parts by mass of the components [A], [B], and [C],

15 [D] 0.1 to 50 parts by mass of a hydrogenated diene-based polymer, at least [A] the ethylene- $\alpha$ -olefin-based copolymer and [B] the polyolefin-based resin being dynamically treated with heat in the presence of a cross-linking agent.

2. A thermoplastic elastomer composition comprising the following components [X], [B1], [C2], and [D1]:

20 [X] 5 to 60 mass% of an oil-extended rubber comprising [A1] 20 to 80 mass% of an ethylene- $\alpha$ -olefin-based copolymer having a limiting viscosity of 3.5 dl/g or more measured in a decalin solvent at 135°C and [C1] 20 to 80 mass% of a mineral oil-based softening agent, provided that the total of [A1] and [C1] is 100 mass%,

25 [B1] 1 to 20 mass% of a polyolefin-based resin, and

[C2] 30 to 94 mass% of a mineral oil-based softening agent, provided that the total of [X], [B1], and [C2] is 100 mass%, and for 100 parts by mass of the components [X], [B1], and [C2],

25 [D1] 0.1 to 50 parts by mass of a hydrogenated diene-based polymer, at least [A1] the ethylene- $\alpha$ -olefin-based copolymer and [B1] the polyolefin-based resin being dynamically treated with heat in the presence of a crosslinking agent.

3. The thermoplastic elastomer composition according to claim 1 or 2, wherein  
the hydrogenated diene-based polymer [D] is at least one polymer selected from the  
group consisting of hydrogenated products of polymers comprising a monomer unit of  
5 a conjugated diene compound and hydrogenated products of polymers comprising a  
monomer unit of a conjugated diene compound and a monomer unit of a vinyl  
aromatic compound.

4. The thermoplastic elastomer composition according to any one of claims 1 to  
10 3, wherein the thermoplastic elastomer composition has a durometer E hardness  
according to JIS K6253 of 80 or less.

5. The thermoplastic elastomer composition according to any one of claims 1 to  
4, wherein the amount of ethylene monomer unit constituting the ethylene- $\alpha$ -olefin-  
15 based copolymer of [A] and [A1] is 35 to 95 mol% of the total monomer units  
consisting of the ethylene monomer unit and a monomer unit of an  $\alpha$ -olefin compound.

6. The thermoplastic elastomer composition according to any one of claims 1 to  
5, wherein the mineral oil-based softening agent of [C], [C1], and [C2] is a paraffin-  
20 based mineral oil.

7. The thermoplastic elastomer composition according to any one of claims 1 to  
6, wherein the crosslinking agent is an organic peroxide selected from the group  
consisting of 1,3-bis(t-butylperoxyisopropyl)benzene, 2,5-dimethyl-2,5-di(t-  
25 butylperoxy)hexyne-3, 2,5-dimethyl-2,5-di(t-butylperoxy)hexane,  $\alpha,\alpha$ -bis(t-  
butylperoxy)diisopropylbenzene, dicumyl peroxide, and di-t-butyl peroxide.

8. The thermoplastic elastomer composition according to any one of claims 1 to 7, wherein the ethylene- $\alpha$ -olefin-based copolymer in the thermoplastic elastomer composition has a cyclohexane insoluble content at 23°C of 60 mass% or more.

5        9. A molded article made from the thermoplastic elastomer composition according to any one of claims 1 to 8.

10      10. A sealing material with low hardness made from the thermoplastic elastomer composition according to any one of claims 1 to 8.

10      11. The sealing material according to claim 10, having a durometer A hardness according to JIS K6253 of 40 or less.

15      12. The sealing material according to claim 10 or 11, formed into the shape of an O-ring, a sheet, or a rod.

15      13. A container using the sealing material according to any one of claims 10 to 12 as a component.

20      14. A container formed from a composite body comprising a sealing part made from the sealing material according to any one of claims 10 to 12 and a main body, produced by injection molding.

25      15. The container according to claim 14, wherein the main body is made from a thermoplastic resin and/or a thermoplastic elastomer composition and can be recycled.

16. A toner case having the sealing material according to any one of claims 10

to 12 as a component.